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[54] **METHOD FOR PHOTO-FORMING SMALL SHAPED METAL CONTAINING ARTICLES FROM POROUS PRECURSORS**

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[57] **ABSTRACT**

The invention is a method for making a metal containing article, comprising the steps of: providing a layer of a porous ground in a selected area; exposing selected regions of the layer of porous ground to light, thereby metallizing the selected regions; repeating the foregoing steps a selected number of times to produce a selected number of layers; and selectively modifying the metallized regions of the layers. The initial metallization can be by electroless or semiconductor photo deposition plating. The subsequent modification of the metallized regions can be by electroless plating, electroplating or sintering. It is also possible, in some instances, to forego the second phase modification, the initial phase having provided the desired parameters. In a third preferred embodiment, the invention is a method using an initial metallization phase effected by exposure of a metal salt, such as a metal halide, to light, thereby inducing activation of the halide. A subsequent metallization step is conducted, as well as subsequent modification according to any of the methods mentioned above. A continuous embodiment of the invention is also disclosed, where a continuously deposited bed of powder particles is exposed to light and metallized. Subsequently, the metallized regions are further modified as above. An apparatus for the practice of the continuous methods is also proposed.

32 Claims, 10 Drawing Sheets